

**AMENDMENTS TO THE DRAWINGS:**

The attached sheets of drawings includes changes to Fig. 4. Specifically, Fig. 4 has been amended to include steps 430 and 431.

Attachments:      Replacement Sheet 3 (Fig. 4).

**REMARKS**

The above-identified application was allowed in the Notice of Allowability mailed May 1, 2007. The issue fee has not yet been paid. Applicant responds to the Examiner's objections as follows.

**Objections to the Specification**

The Examiner objected to the title of the invention as allegedly not descriptive and required a new, more specific title. With this response, Applicant amends the title and submits that the amended title more specifically describes the invention, as requested by the Examiner. Accordingly, Applicant requests that the Examiner withdraw the objection to the title.

Applicant also proposes minor amendments to the specification. Specifically, Applicant proposes adding a reference to Fig. 4 in paragraph [0015] in order to clarify the relationship between Fig. 2 and Fig. 4. Applicant also proposes adding, in paragraph [0018] a description of the new blocks 430 and 431 as shown in amended Fig. 4. These amendments are supported by other existing disclosure in the specification, particularly in paragraph [0015]. The amendments to Fig. 4 are further discussed in the next section.

**Objections to the Drawings**

The Examiner objected to the drawings under 37 C.F.R. § 1.83(a) as allegedly not showing every feature of the invention specified in the claims. While Applicant does not necessarily agree with the Examiner's characterization of the figures, in the interest of expediting issuance of this patent, Applicant has amended Fig. 4 to show new steps

at reference numbers 430 (Instruction fetched from Icache AND is a jump, branch, call or return instruction); 431 (Index TCache portion with address of current instruction); and 432 (Insert current instruction into semi-trace cache 20 or line buffer). Applicant submits that the figures, and particularly Fig. 4 as amended, show a system for an instruction indexing logic, wherein the indexing logic is not used for either the ICache portion or the TCache portion when the TCache portion is supplying instructions; and the TCache portion is indexed only when a processor executes one of: a branch instruction, a jump instruction, a call instruction, and a return instruction, as required by the Examiner.

Applicant further submits that the figures, and in particular the combination of Figs. 2 and 4, show filling an array with ICache lines mixed with TCache lines where an allocated proportion of ICache cache lines to TCache cache lines is dynamically changing with time and neither the ICache portion nor the TCache portion are looked up when the TCache portion is supplying instructions; and using an instruction indexing logic to select some instructions, wherein the indexing logic is not used for either the ICache portion or TCache portion when the TCache portion is supplying instructions; and the TCache portion is indexed only when a processor executes one of: a branch instruction, a jump instruction, a call instruction, and a return instruction, as required by the Examiner.

Accordingly, Applicant respectfully requests that the Examiner withdraw his objections to the drawings.

**CONCLUSION**

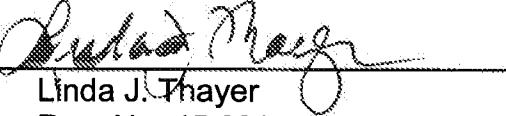
Each of the requested amendments is fully supported by the specification and drawings thus no new matter is added. The amendments will not require an additional search nor do they raise new issues. Therefore, Applicant respectfully requests that this Amendment be entered and the requested changes made.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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